British Columbia's Primary Care Demonstration Project

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BRITISH COLUMBIA
Ministry of Health Planning
Rural Health and Primary Care Renewal

Many thanks....
The Primary Care Demonstration Project (PCDP) is a three-year research project that was jointly funded by the B.C. Ministry of Health Planning and Health Canada's Health Transition Fund. HTF participation in this project ended on March 31, 2001. We would like to take this opportunity to thank Health Canada for providing the start-up funding that made this exciting initiative possible. The PCDP will continue to March 2002, and the lessons learned will continue to be shared in future updates.

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BACKGROUND

In recent years a number of national and provincial task force reports have concluded that innovations in how primary health care is delivered will serve to further strengthen Canada's health care system. Moreover, these reports invariably identified enhanced coordination of care at the patient level, greater integration of care with community-based services, and an integrated approach to illness prevention and health promotion as key to improving public health status. In response to the 1997 *National Forum on Health* recommendations, Health Canada established the *Health Transition Fund* (END), which supported provinces in testing new approaches in the areas of home care, pharmacare, integrated service delivery, and primary health care.

In 1998, the B. C. Ministry of Health was awarded $9.6 million from this fund to launch the *Primary Care Demonstration Project* (PCDP). The goal of the PCDP was to test new and innovative models of primary health care delivery aimed at:

- Optimizing the accessibility of high quality primary health care, including appropriate referral to other services;
- Promoting, enhancing and rewarding the coordination of care and case management functions of primary health care practitioners;
- Encouraging and enhancing multidisciplinary team-based, patient-centred care;
- Optimizing health care professional job satisfaction; and
- Enhancing the provision of quality care through support of clinical information management systems.

B.C.'s health care community was invited to submit their ideas on innovative ways of delivering primary health care. The Assistant Deputy Minister's Primary Care Advisory Committee (which included members from several regional health boards, community health councils, university health-related departments, health sector unions, and representatives from medical and health associations) reviewed the proposals received, and recommended the following seven projects for funding on the basis of their potential to contribute to existing knowledge on primary health care delivery.

These seven projects began implementation during the autumn of 1999, and the following shares their thoughts and experiences on delivering primary health care in a new way.

Brookswood Family Practice Clinic (Langley)

The Brookswood Family Practice Clinic has a very large and diverse caseload both in patient age and health status. One of Brookswood's reasons for participating in the Primary Care Demonstration Project was to look at how a collaborative approach to primary health care delivery could better serve their patients' health care needs. To do this, Brookswood introduced a number of changes such as moving to a multidisciplinary group practice approach that includes a nurse.

Brookswood originally consisted of three experienced family physicians with their own private practice. The physicians in the clinic have found that sharing responsibility for patient care has had a positive impact both on workload pressures and in providing a full range of primary health care. One of Brookswood's goals for moving to a new model of primary health care delivery was to enhance the practice's capacity to focus more on health promotion and illness prevention activities. Since joining Brookswood, Patt Sosnoski, the team's nurse, has provided clinics in such diverse areas as osteoporosis, arthritis, asthma, diabetes, menopause, weight loss, breast screening, fall prevention, and fibromyalgia.

"These clinics have been well attended, and patients appreciate the fact that they can get the health education they need within 2 to 3 days," notes Patt Sosnoski. Patt has also taken on responsibility for conducting PAP call-backs, well-baby clinics, and immunizations/ inoculations.

Dr. Ray Simkus comments that being part of a multidisciplinary group has advantages with respect to enhancing the quality of patient care that the practice provides. The nurse member of the primary health care team is available to provide more detailed explanations and assistance for patients requiring extra support, such as additional monitoring of blood pressure and arranging community care. These are important but time-consuming activities. By sharing responsibility for patient care, the physicians are able to use their time in other ways to deal with patient medical concerns.

"It is a very patient-centred approach," says Dr. Simkus. "By taking more time with patients, we are able to develop a more complete picture of the patient's health status and to be more proactive in providing care. For example, we were able to conduct random blood sugar screening for diabetes among waiting room patients. By doing this, we identified high glucose levels in a number of people who were not even aware they might have a health problem."

Brookswood has improved their patients' access to primary care by extending office hours to include three evenings a week. The nurse now sees many patients for health concerns that do not require a physician's attention so patients do not have a long wait in the office. Patients may be notified of lab test results via telephone by either a physician or nurse, and they appreciate the convenience of being able to phone Brookswood with their health questions rather than always having to come into the office.

A patient satisfaction survey, conducted as part of the evaluation of project, showed that Brookswood patients are, indeed, satisfied with their access to primary health services.

Another key aim of this project was to contribute to existing knowledge on how evidence-based medicine and advanced clinical information

management technology can influence primary health care delivery, and in turn, patient health status. Brookswood plans to implement chronic disease management protocols within their team approach. By targeting conditions like diabetes, heart disease and respiratory problems, the project hopes to reduce patient hospital admissions. Brookswood is currently working with its regional health board to identify opportunities to better integrate service delivery within the community, with the goal of providing services more effectively and efficiently in the community.

Brookswood is in the process of converting paper charts into electronic medical records and customizing its information management technology to best meet the practice's needs. To date, electronic enhancements have improved efficiency in renewing prescriptions, developing referral letters, and receiving lab results. Patient recalls have also been made easier.

"It is easy to identify a patient population with a chronic disease, and then identify those patients who have not yet had a necessary test or treatment," says Dr. Simkus.

Dr. Simkus points out that ease of use is an important aspect of clinical information systems since most physicians do not have the time to learn or use a system that is complex or difficult to navigate. Important aspects of this technology for future developments include a good diagnostic list (e.g., SNOMED), access to the Provincial Drug Formulary, and the ability to send out electronic prescriptions.

Looking back over the past year, Dr. Simkus notes that this model of primary health care delivery is something that he would like to continue with, and finds the population-based funding system preferable. Similarly, Patt Sosnoski notes that her job is very rewarding. "I would love to continue, and end my career at Brookswood."

PRIMARY CARE DELIVERY MODEL KEY COMPONENTS

During the 1990s, numerous national and provincial reports concluded that new options for delivering primary health care are needed in order to better meet the needs of both patients and providers, and to ensure the accessibility and sustainability of Canada's health care system.

These reports invariably identified the follow key components as fundamental to strengthening primary health care delivery in Canada. The seven PCDP sites share these key features and their supporting mechanisms:

1. an integrated multidisciplinary group approach to primary health care delivery
2. group medical practice
3. 24 hour X 7 days a week access to medical services (including some extended hours of clinical services)
4. patient access to the full range of primary health care, including health promotion and illness/injury prevention services
5. integration with community-based services

Mechanisms supporting key features are:

6. continuous patient health records via clinical information management systems technology
7. a physician funding methodology based on the patient population served, as opposed to the number of services provided
8. quality assurance mechanisms (e.g., setting population health target goals, case-finding, use of clinical protocols, peer review, patient input via patient satisfaction surveys, etc).

The Chase Health Centre Project (Chase)

The Chase Health Centre Project can best be described as an entire community working together to achieve an improved way of accessing and delivering primary health care in a rural location. Chase is located about an hour's drive from the city of Kamloops, and its population is about 12,000, with much of the population living in remote hamlets. In the summer, the population expands to 20,000. Fifty percent of the patient population is over 55 years, and there is a fairly large aboriginal population.

The project brought together the Chase Medical Clinic, Chase Community Health Centre, Scotch Creek Medical Clinic, and Thompson Regional Health Board. Five family physicians work in partnership with nurses, counsellors, home care and public health nurses, respiratory therapists, a dietician, and a diabetic nurse educator to provide a full range of primary health care to an entire community. In collaboration with the regional health board, an integrated computerized clinical information management system was installed to allow for better communication between the physicians and the region's hospital, diagnostic laboratories, and other agencies.

Dr. Steve Rollheiser notes that, from the physicians' perspective, much of what they do has stayed the same while other aspects of their work have changed significantly. For example, the primary care delivery model better supports physicians sharing responsibility for patient care, and the delegation of some important procedures to nurses, such as initial patient assessments, injections, and patient follow-ups. A triage system has been implemented whereby patients are referred to either a physician or a nurse depending on the nature of their problem. Colleen Luttman, a nurse with the project, notes that non-urgent care is usually provided by one of the nurses.

"We can usually spend some extra time with the patient," says Colleen Luttman. "For example, when patients come in for their monthly injection, we'll also take their blood pressure, inquire about any other health problems they have, and perhaps be able to provide information on how they can better self-manage their condition."

Dr. Rollheiser reports that as a result of joining the project, the practice's physicians are now also working more closely with mental health counsellor, Carol Tomlinson, sharing care of patients with chronic mental illness and those experiencing acute stress or a life crisis.

Dr. Rollheiser notes that moving from fee-for-service payment to population-based funding has enabled each physician to take on responsibility for handling emergencies and overflows on certain days. A nurse will conduct an initial assessment, and if the individual needs to see a physician, they will be seen that day. Otherwise, they will be either treated by the nurse or scheduled for an appointment with the physician later in the week. This approach allows the patient to obtain the necessary care without having to visit the hospital emergency department or seek care from a treatment center elsewhere. Patients can also have many of their health care questions answered over the phone by either a physician or nurse.

Dr. Rollheiser notes that due to the practice's large patient caseload and volume of acute care work provided on a daily basis, there is a limitation to the availability of appointment times each day. However, a patient satisfaction survey, conducted as part of the evaluation of the PCDP, reported that Chase Health Care Project patients are satisfied with their access to primary health care services, including the time it takes to obtain an appointment with a physician.

Because the project's multidisciplinary team is both diverse and large, patients have access to a full scope of primary health care. Sally Robinson, one of the project's nurses, has provided many patient clinics in hypertension, osteoporosis, diabetic foot clinics, and has organized a walking club. A nurse also provides health promotion clinics on hypertension at the Scotch Creek Clinic, and a physician has provided men's health clinics, including prostate health. Patients are also referred to existing community-based programs where some of the project staff have been guest educators. "We do not duplicate services; our goal is to identify where gaps exist and fill in the gaps," says Gerri Rintoul, Project Manager.

Colleen Luttman notes that patient access to primary health care is enhanced via the multidisciplinary team approach. "If someone comes in with a cold and we find that they also have a touch of asthma, we are able to refer them to the respiratory therapist. For some things such as

monthly injections, patients no longer have to make an appointment with the physician; they can usually see one of the nurses right away." Patients have started to refer themselves to the other health care professionals, indicating that they are learning how to use the health care system more appropriately. "Having a multidisciplinary team allows us to get to the root of patients' health concerns, and help them to better deal with their condition," notes Gerri Rintoul.

Dr. Rollheiser reports that the next goal of the project is to establish and expand a program-based approach to chronic disease management. "The primary care delivery models lends itself well to this approach, but time to plan is often limited by the acute care needs of our large patient caseload." The physicians at the Chase Medical Clinic have moved from working in individual practices under one roof to a group approach where responsibility for patient care is now shared. This approach is noted to be working quite well, and it is felt that the quality of patient care has benefited from the intellectual support that is available when responsibility for patient care is shared.

"Our relationship is egalitarian, with an emphasis on consensus-building," comments Dr. Rollheiser. "This primary health care delivery model can incorporate different styles; however, it probably will not appeal to the rugged individualist."

As with the other project sites, the project experienced substantial challenges in implementing its clinical information system; this resulted in lost time and money, and affected morale. It is estimated that project implementation was set back eight months. However, the project has now implemented a system that they feel is well-designed and supported by a vendor who is working with them to customize the software to better suit their needs. While the practice is not using the information technology to its full capacity yet, they are seeing the benefits of using this technology in their day-to-day practice. Especially useful is the messaging system that ensures good communication between the three project locations, the ability to call up patient chart information in real time and to enter information directly into the patient chart.

Dr. Rollheiser notes that while advanced clinical information technology may have the potential to significantly enhance primary health care delivery, national attention needs to be placed on setting standards and ensuring appropriate support for it to be a worthwhile venture.

Gerri Rintoul notes that health care planning is made more efficient by taking a population-based health approach. "By knowing, for example, how many patients have chronic conditions, we can develop the information and support systems they need to maintain good health. A population-based approach also helps us to better rationalize services – by knowing the health status of our patient population, we are able to determine what services are needed and the resources required to adequately provide the services they require."

Looking back over the past year as project manager for the Chase Health Centre Project, Gerri Rintoul observes: "This model of primary health care delivery makes sense for our community. Primary health care delivery is very patient-centred - through our multidisciplinary team approach we are able to see that all of our patients' primary health care needs are met."

Dr. Rollheiser comments that the project's physician group would like to continue to work within this model and adds, "The model was worth doing, and worth pursuing. We feel that it is a practical, workable, sustainable model, that's enjoyable and liberating because it is not fee-for-service. It's nice not to be tied to the fee-for-service treadmill," notes Dr. Rollheiser. "While some physicians will always prefer fee-for-service, this suits us fine."

Fort Family Practice (Fort Langley)

The Fort Family Practice is a well-established practice, which, over the years, has created extensive links within its community. The practice has a large patient caseload, and is committed to providing comprehensive care to all its patients - from newborn and infant health to care of the elderly. The Fort Family Practice is involved in clinical instruction as it is part of the University of British Columbia's medical student summer teaching program. Dr. Alister Frayne, a physician with the Fort Family Practice, is a Clinical Assistant Professor at the University of British Columbia Medical School. In addition, Fort's family physicians are active on staff at Langley Memorial Hospital

The multidisciplinary team consists of four family physicians, two nurses, and another nurse affiliated with the

practice who provides personal and grief counselling to patients by referral. The project is also linked to existing community-based services such as Langley Social Services, Langley Family Services, Psychiatric Outreach Program, and Boundary Public Health.

On April 1, 2001, clinical psychologist Dr. Susan Turnbull relocated her practice to the Fort Family Practice, augmenting the counselling services currently provided. Fort also has a graduate student training with them, as part of a post graduate Nurse Practitioner programme through Athabasca University in Alberta.

Dr. Frayne notes that Fort Family Practice has undergone many changes over the past year. They moved from being four individual practices under one roof to a group practice where patient care is now shared among the physicians. Moreover, the multidisciplinary team members participate in case conferences to ensure co-ordination of patient care.

In addition to practice changes, substantial building renovations were undertaken and co-ordinated in such a way that patient access to primary health care services was not interrupted.

Patient access to primary health care has improved as a result of Fort's new multidisciplinary team approach. A triage system has been introduced where patients are referred to either a physician or a nurse depending on the nature of their health concern. Dr. Frayne observes that this approach has enabled patients to obtain care more quickly. Dr. Frayne notes that in spite of his heavy patient caseload, he personally feels less rushed as a result of the team approach and the back-up it affords him.

Fort Family Practice has enhanced access to primary health care in a number of other ways. Patients now have greater telephone access to either the physicians or nurses regarding their health questions (and thus do not have to always come into the office). In addition to providing immunizations and inoculations, Fort's nurses also provide home visits to elderly housebound patients.

A patient satisfaction survey, conducted as part of the evaluation of the project, showed that Fort Family Practice patients are satisfied with their access to primary health services.

Before joining the project, Karen Knutsen worked as an emergency room nurse and welcomed the opportunity to work in a primary health care setting. "Primary health care provides the opportunity to be proactive; the experience is great."

On joining the project, her primary role was in the area of health promotion, including activities such as PAP-call backs, reproductive health, immunizations, and patient education on hypertension, diabetes, and asthma. She also reviews certain test results, such as lipid and cholesterol, with patients. In addition, patients have also benefited from referral to other programs already existing in the community. If a long waitlist for a certain community-based program exists, the patient can access health education at the practice.

Over the past year, the nurses' role has evolved to include community-based work ranging from linking patients with existing community-based services and discharge planning, to making house calls to housebound patients. The latter has become an important feature of Fort Family Practice's primary health care delivery because historically, housebound patients would otherwise have used the hospital emergency room for non-emergency conditions (indeed admission aversion comprised 47% of the home visits).

Fort's next goal is to work with its regional health authority to look at ways to better integrate their services. One priority is to develop a more efficient and effective way of managing the health of patients at risk for hospital admission. To do this, Fort is exploring how they could co-ordinate with their regional health authority to formalize care path protocols for patient referral and management.

Fort Family Practice physicians feel that the quality of patient care has improved due to less fragmentation. Dr. Frayne explains that the Fort practitioners have been educating their patients on the importance of continuity of care, and they are finding that patients are now less likely to seek their primary care from other treatment centres.

Fort improved its clinical information system when it went from having a basic computer billing function to an integrated information management system which includes a scheduling function, interoffice communication, Meditech (for downloading lab results directly), and an electronic medical record.

"We are half-way to being fully computerized," comments Dr. Frayne. The final result will be computers in

each consulting room, and the ability of practitioners to access patient charts in real-time. Dr. Frayne adds that the computer system implementation was a challenge, but Fort is already seeing the benefits of the enhanced technology in day-to-day practice.

"This last year was a challenge and the decisions we had to make filled up a lot of time, but it's a good change", says Dr. Frayne. There is still more work to undertake, but Dr. Frayne notes that, at this point, the Fort Family Practice finds this approach to primary health care delivery favorable, and feels that they would like to continue practising under this model.

The James Bay Community Project (Victoria)

The James Bay Community Project (JBCP) has longstanding roots in its community and has provided primary health care and family and community services to the residents of James Bay for 25 years. This project is built on the foundation that addressing the determinants of health is intrinsic to the delivery of good primary health care. The JBCP maintains well-established links with a network of community and social services agencies, and other Regional Health Board services. Intrinsic to the project is community governance (through a community board) in identifying, developing, and delivering services, as well as a strong emphasis on community participation in health promotion.

The primary heath care team has expanded to include four family physicians, three nurses, a clinical counsellor, and support staff. The JBCP's patient population reflects the local population (43% are seniors over 65 years, many who are the frail elderly). Often their patients have multiple and complex health issues and social needs.

The JBCP's decision to participate in the Primary Care Demonstration Project was sparked by their goal to further improve patient access to JBCP and, at the same time, increase efficiencies, improve accountability, and enhance their population health-based approach to primary health care delivery. In looking back over the past year, Executive Manager, Judy Burgess sees clear benefits from having participated in the Primary Care Demonstration Project.

"We wanted to change how we were doing things, and the PCDP provided the transitional funding, a framework that practitioners could use to think about how primary health care could be delivered differently, and an opportunity to meet with other project participants and learn how they are changing the way they deliver primary health care. It is helpful to feel that you are part of something bigger, being contemporary, and involved in change."

Moving to the new model of primary health care delivery has enabled the JBCP to increase patient access to their primary health care services. In past years, The JBCP has had a waiting list of over 150 patients who wanted to receive their health care from the JBCP, but the capacity to accept new patients was limited because there were only three salaried physicians on staff.

"We wanted to expand our patient base, but we just were stuck," says Judy Burgess. "Moving to a population-based funding approach allowed us to in-take these patients because the income generated is based on the number of patients who receive their primary health care from us." The income generated by these new patients, in turn, enabled the JBCP to hire a fourth physician. Very recently, JCBP has added approximately 700 new patients to their practice as a result of in-taking patients from a local practice that is closing, and JBCP will be expanding to include a fifth family physician.

In addition to meeting longstanding requests from members of the community to become patients of the JBCP, accessibility has improved in other ways as well. "The JBCP physicians have developed a much more effective schedule," comments Judy Burgess. The physicians now have 'shared care' responsibility, which allows for greater coverage. The physicians have a weekly rotating schedule where one physician does the nursing home and hospital visit, while the other physicians see patients at the JBCP clinic. In addition, a number of appointment slots are set aside each day for same-day visits, thus minimizing the need for patients to go to treatment centres elsewhere.

"More patients are accessing our primary health care services", says Judy Burgess, "appointment hours have doubled over the past year, as a result of changing how we practice." A patient satisfaction survey, conducted as part of the evaluation of the project, reported that JBCP patients are satisfied with their access to health services.

Patient access to primary health care has also improved as a result of JBCP's multidisciplinary team

approach. A triage system has been implemented whereby patients are referred to the most appropriate provider, enabling the physicians to spend more time with patients with the more complex medical problems. "A consistent patient triage approach has not yet been achieved, but we are getting there," notes Judy Burgess. All the practitioners have weekly meetings that they find useful for handling changes in the clinic and for ensuring co-ordinated patient care.

The quality of patient care and education has also been enhanced by JBCP's three nurses, who each have speciality areas of knowledge and expertise including women's health, paediatric health, chronic disease management, and health promotion. A priority for the project is the development of a patient self care program so that patients can be more involved in looking after their chronic health conditions.

Judy Burgess notes that primary health care delivery will also be enhanced with the implementation of their advanced clinical information software. The JBCP is currently in the process of coming up to speed on their system's functionality. "The electronic medical record (EMR) will make our in-take assessment process structured and succinct. The EMR will change patient assessment in a way that improves both the quality of care the patient receives, and the efficiency with which that care is provided," notes Judy Burgess.

The EMR will automatically list and track all patient problems. Health surveillance will benefit greatly from the use of this technology. The EMR will concisely summarize the patient's health history, decreasing the need for lengthy and redundant chart information. Judy Burgess also notes that chart processing efficiency is already apparent, only two weeks into implementation.

"Its great to be involved in a dynamic process", says Judy Burgess. "We're excited. We feel that this approach to primary health care delivery will work." The project's physicians feel that they are using their skills effectively and efficiently, have been able to increase the volume of patients they see, and have more confidence in the practice numbers. The nurses and counsellor are expanding their scope of practice through an interactive and informal team approach to patient management. Complementary practitioners, such as a midwife and homeopathic physician, have also been included in the team.

Furthermore, by collecting and submitting patient-based encounter data "we know exactly how many patients receive the majority of their primary health care from JBCP, and their health status. Having this information helps us be more accountable for the health of the patient population," notes Judy Burgess. The JBCP feels, however, that the determinants of health and community involvement need to be addressed in primary health care, and this focus should not be lost when developing new models of primary health care delivery.

Spectrum Health (Vancouver)

Five family physicians with experience in HIV/AIDS care formed a new partnership to serve their patients better in their community. The physicians provide care for approximately one-quarter of the HIV/AIDS patients in British Columbia. True to its name, Spectrum Health consists of a team of five physicians, a nurse, a pharmacist, a nutritionist, and a social worker. The project is working in partnership with the Vancouver/Richmond Regional Health Board, which is providing funding support for some of these positions.

This primary health care team offers a broad range of health services to families in the community, with a special focus on providing primary health care to patients with HIV/AIDS. Through its linkage to the British Columbia Centre for Excellence in HIV/AIDS at St. Paul's Hospital, Spectrum Health contributes significantly to knowledge about meeting the complex primary health care needs of patients living with HIV/AIDS.

Over the past year, Spectrum Health has made substantial progress in its multidisciplinary team approach to primary health care delivery. The team's nurse, Brian Warnke, coordinates home care, has developed a immunization program, conducts STD testing and counselling, and is responsible for patient triage.

"Patient triage has become an important function. Patients can phone Spectrum Health and the team's nurse will assess the patient's condition and determine whether they need to be seen immediately, or can be scheduled for an appointment during the week. This promotes continuity of care," says Dr. Carol Murphy.

Spectrum Health feels that the health promotion function afforded by the multidisciplinary team approach is

invaluable. Brian Warnke notes that one of his goals is to help patients improve their ability and confidence in managing their own chronic conditions.

"I'm able to spend a little more time with patients, focusing on specific things - patients are then more focused when they talk to one of the physicians. My role is very front-line, it's a great experience," says Brian Warnke.

People living with HIV/AIDS need to keep their immunizations up-to-date, and Brian Warnke ensures this by conducting call-backs to patients who are missing certain immunizations. Because he provides this immunization service, patients now do not have to wait for an appointment with a physician. Also, many patients now self-refer to the team's nurse for concerns that do not require physician attention.

"Patient involvement in their own antiviral care is optimized by having a pharmacist on our team," says Dr. Murphy. Up to 50 per cent of HIV/AIDS patients will have difficulty complying with their drug regime. The pharmacist is able to provide patient education on the importance of compliance and thus provides a preventive health function. Assessing the effectiveness of this intervention will require time, and will be undertaken in conjunction with the British Columbia Centre for Excellence in HIV/AIDS at St. Paul's Hospital.

Spectrum Health has recently welcomed a new social worker, Lee Lourdaux, to the primary health care team. His focus will be on crisis intervention and linking patients with appropriate community-based services. He will also provide short-term counselling for acute mood disorders, and develop support groups focusing on issues such as living with HIV/AIDS, changes in health status, implications for work, and addictions.

Lipid disturbances affect 70% to 80% of people living with HIV/AIDS, and the BC Centre for Excellence has provided the funding Spectrum will need to hire a nutritionist. Spectrum also notes that a drug and alcohol counsellor is needed in order for the clinic to fully meet their patients' primary health care needs.

The roles and responsibilities of the primary health care team members are continually evolving. Spectrum's next step is to develop case management rounds for patients with multiple health issues in order to ensure that all their primary health care needs are met.

To further enhance patient access to primary health care, Spectrum Health has implemented evening and Saturday clinic hours, which are fully used by patients. It also provides lab test results by telephone so patients do not have to come into the office to obtain results.

"Moving to a group practice approach has been a bonus," says Dr. Murphy. The coverage afforded by physicians sharing responsibility for patient care has improved patients access to primary health care and continuity of care. For example, when a particular physician is out of the office, patients no longer feel they have to wait until their physician returns in order to have their concerns attended to, or alternatively, seek their primary health care somewhere else.

"Patients have accepted the shared responsibility approach to care, and are comfortable seeing one of the group's other physicians or the nurse," comments Dr. Murphy. "Knowing patients are seeing one of our group takes the pressure off us as well because we know that our patients are receiving continuity of care." The coverage afforded by sharing responsibility for patient care has also improved the physicians' quality of life and professional satisfaction by enabling more vacation time and time to participate in continuing education and conferences.

A patient satisfaction survey, conducted by a survey company as part of the evaluation of the PCDP, reported that Spectrum Health patients are satisfied with their access to primary health care services.

Dr. Murphy notes that Spectrum's clinical information management system "is still a work in progress, but is working well." The billing and scheduling system is working very well and the internal communication system (intranet) has become indispensable. Spectrum is able to download some lab information, x-rays, and develop consultation letters using the new technology. The patient information summary (e.g., history, physicals, allergies) also works very well. Spectrum Health plans to replace its paper charts with electronic medical records (EMRs).

"We see, in the not-too-distant future, never having to pull or re-file patient charts again," says Dr. Murphy. "We're very excited, and very happy with the computer technology." Spectrum also plans to develop electronic clinical protocol templates for HIV/AIDS.

Spectrum Health currently serves as a teaching site for nurses, social workers, and pharmacists interested in working in the area of HIV/AIDS. By

participating in Spectrum's multidisciplinary context, these health care professionals have the opportunity to receive first hand experience working in an environment where responsibility for patient care is shared among a group of health care professionals.

Dr. Murphy notes that Spectrum Health plans to continue working under this model of primary health care delivery. "I would never go back," notes Dr Murphy. "This makes so much more sense, is more rewarding, and more fun. The intellectual support you receive from working in a team environment is great. We always wanted to work this way, and the Primary Care Demonstration Project has provided the opportunity to develop and implement our vision."

Surrey Health Services, Mental Health and Medical Centre (Surrey)

People with a mental illness do not always obtain their primary health care through conventional channels. They will often visit a number of different doctors or rely on hospital emergency departments for their primary health care needs. The project team provides primary health care services to individuals with mental health difficulties, their family members, and youth.

The goals of this project, sponsored by the Surrey Health Services, include encouraging continuity of care, diverting unnecessary hospital emergency visits, and ensuring appropriate follow-up treatment plans. Five family physicians, a nurse and medical office assistant have co-located with the Surrey Mental Health Service Central Intake, Urgent & Mobile Response Service and Geriatric Program, and Continuing Care. The primary health care team operates as an integrated component, along with the seven other components of the Surrey Health Services Mental Health Program and Surrey Memorial Hospital. Close working relationships and protocols have been developed with the Ministry for Children and Families, Surrey RCMP, and other health and social services agencies in the Surrey community.

In order to improve patient access to primary care, the centre provides physician services five days a week with extended hours two days a week. A nurse is working in an expanded capacity, and there are plans for a Saturday morning clinic as well. The project will soon be supported by a psychiatrist who is joining Surrey Memorial Hospital and will be doing out-patient work.

Over the course of the year, the project has had many inquiries from physicians interested in working at the site, and there are plans to add more physicians to the team. In the next year, the project hopes to integrate a pharmacist into the team, and embark on co-facilitation involving physicians, case managers, and other providers in areas such as dual diagnosis (co-morbid substance abuse is a serious and common problem with this patient population), stress management, and anxiety.

Pam Whiting, Administrative Director of Mental Health for Surrey Health Services, notes that patient access to primary health care has improved as a result of the project. As soon as patients present at Central Intake they are referred to the primary health care clinic. This links them with a family physician, diverts them from using the emergency room for their primary health care, and lessens their need to seek primary care from different sources which compromises their continuity of care.

Sarb Parmer, the team nurse, states that ensuring continuity of care for this patient population is a priority of the project. "We try to follow-up regularly with our patients, and make sure they haven't fallen through the cracks. We check to make sure their medications are correct, and then follow up that they are taking their medications." Two of the Centre's physicians also work in the GP Unit in Psychiatry at Surrey Memorial Hospital, which helps maintain continuity of care for some of the patients.

Many patients present at Central Intake with mental health concerns, and referral to the project helps ensure they will be diagnosed and treated for medical conditions they may not be aware of, due to their mental state. The team's nurse is also available to answer health questions over the phone. Patients in turn are triaged in such a way that those who require medical attention are encouraged to come into the clinic rather than wait until their medical condition worsens – a common occurrence among this patient population. Sometimes the patient is experiencing a psychotic episode, and the phone contact enables one of the team members to advise the patient about taking their proper medication.

Pam Whiting notes that the physicians are able to spend more time with each patient, which is needed as communication with this patient population is difficult due to their mental state. Additionally, the team's nurse often undertakes extra monitoring, and conducts one-to-one education with patients on managing chronic conditions like diabetes, asthma, and hypertension. Sometimes these educational sessions need to be repeated due to the patient's mental state. "Our primary health care approach is more patient-centered, less fragmented, and more comprehensive," notes Sarb Parmar. The physicians have welcomed this shared approach to primary health care delivery, notes Pam Whiting.

The project also links patients to other community-based services provided through Surrey Mental Health Services and the South Fraser Health Region at large.

"We take the time to identify the types of support that a patient needs, and then make referrals to the appropriate community-based services," says Sarb Parmar. The team's physicians and nurse work in collaboration with the patients' case manager and psychiatrist for joint planning.

"Co-ordination of patient care has definitely improved as a result of the project," notes Pam Whiting.

University of British Columbia Family Practice Centre (Vancouver)

This project, situated at the Children's and Women's Health Centre of B.C., provides a broad range of health care services to a patient caseload with diverse needs. Patients can expect to receive comprehensive primary health care services across their entire life span - from maternity and infant care through to geriatric care.

The UBC Family Practice Centre trains Family Practice Residents from the University of British Columbia who, prior to beginning their own medical practices, have the opportunity to gain experience working in this new model of primary health care delivery.

The project has an integrated health care team of seven physicians and support staff. A pharmacist is on site twice a week as part of the residency program, and a psychiatrist works in the clinic one half-day per week. They have recently welcomed a new nurse, Sharon Thomson, to their group. Sharon Thomson has a wealth of experience in primary care, having worked as an advanced registered nurse practitioner in the United States for many years. She has specialized knowledge and expertise in women's health. Prior to joining the project, Sharon Thomson was Director of Clinical Services at the Planned Parenthood Association of British Columbia. With her help, the Family Practice Centre plans to provide more group health promotion and education services in areas such as women's health, diabetes, hypertension and asthma. They also plan to produce printed patient health education materials.

Looking back over the past year, the physicians note changes in patient access with the introduction of evening clinics on Monday through Thursday, and a Saturday clinic as well. Additionally, patients can have many of their health questions addressed through telephone callbacks. The group feels that having a nurse on the team will provide another avenue of patient access through a triage system where patients will initially be assessed by the nurse and those requiring immediate care will be seen in a timely manner. In addition, patients will have the opportunity to have some conditions such colds, bladder infections, respiratory infections and PAP repeats treated by the nurse. This in turn will result in the patient not having to wait for an appointment with one of the practice's physicians. There are also plans for the team's nurse to assume responsibility for immunizations/innoculations, and well-baby checks. In the future, the project plans to integrate a nutritionist into their team.

The physicians at the UBC Family Practice Clinic also note that they are satisfied with the clinical information management system they now have, commenting that it is "intuitive, and primary care focused." The practice's next goal is to develop their electronic medical record (EMR).

The UBC Family Practice Clinic experienced considerable implementation challenges this past year, and the group has not yet made a decision if it will continue with this model of care delivery, noting that more discussion is needed.

Park Avenue Medical Clinic (Terrace)

The Park Avenue Medical Centre joined the Primary Care Demonstration Project (PCDP) in November 2000 to round out the PCDP evaluation. This project consists of 12 individual practice physicians and four part-time physicians who

will continue to receive fee-for-service payments, while incorporating other health care professionals into their practice and implementing an advanced clinical information management system. Thanks are extended to the British Columbia Medical Association for site recruitment and selection for this project.

In January 2001, the Park Avenue Medical Clinic welcomed a nutritionist to their practice. The nutritionist works 3.5 days per week at the clinic, assisting patients with such issues as obesity, lipid disturbances, and diabetes-related nutrition issues. Dr. Geoff Appleton notes that integration of a nutritionist has improved patient access to primary health care insofar as the practice was previously unable to refer patients to the nutritionist on staff at their local hospital. Park Avenue Medical Clinic's primary health care team also includes several office nurses, and a registered nurse who has been with the clinic for many years and is responsible for inoculations, suture removal, and dressing changes.

Prior to joining the PCDP, the Park Avenue Medical Clinic already had a clinical information management system, including an electronic medical records function for the past five years. Dr. Appleton notes that the electronic medical record is very helpful in day-to-day practice, increasing the efficiency of accessing a patient's history by the physician. They also have had Lab-Track for some time now, and receive many consultation reports electronically. As part of the PCDP, the practice has enhanced its system's capabilities - they can now print out prescriptions and enter the information directly into the patient medical record.

The practice now also has access to the Internet, and the clinic's internal communication has been enhanced through an office e-mail system. Via a modem connection with the local hospital department, Park Avenue Medical Clinic has access to emergency department information pertaining to their patients. The clinic will soon have access to PharmaNet as well.

With respect to future plans, the Park Avenue Medical Clinic would like to have access to their patients' hospital records on-line, and explore the possibility of implementing voice recognition technology that will facilitate entering information into patient records.

BLENDED POPULATION-BASED FUNDING FORMULA

The 1997 National Forum on Health identified the realignment of funding to patients, not services, as key to promoting a continuum of preventive and treatment services, and the use of multidisciplinary teams of providers. In response, and in consultation with national and international health economists, the Primary Care Demonstration Project developed a blended population-based funding method.

Blended funding uses a population-based funding method for certain types of medical services, and for certain types of patients, while maintaining a fee-for-service component.

"Core services" refer to a specific set of medical services that most GPs typically provide as part of comprehensive primary health care delivery. Anaesthesia, minor surgery, obstetric and emergency related services are not provided by all general practitioners in BC and therefore are considered "non core services."

"Registered patients" are patients who live in the practice's catchment area, and who receive the majority of their primary care from the practice. Practices receive population-based funding for "core services" provided to "registered patients". Payment for "non-core" services to "registered patients" remains fee-for-service.

Patients who live in the practice's catchment area, but do not receive the majority of their primary care from the practice are considered "non-registered" patients. Patients who do not live in the practice's catchment area are considered "transient" patients. Practices are paid fee-for-service for core and non-core services that they provide "non-registered" and "transient patients".

The majority of income that a practice receives is population-based. In order to provide fair and reasonable compensation, the population-based funding is adjusted based on patient age, sex, and need for medical services. Need for medical services is adjusted using the Johns Hopkins Adjusted Clinical Group (ACG) case-mix adjustment system. The ACG assigns patients to illness burden categories. Each of the 82 ACG categories has a specific yearly payment rate, with higher rates being paid for patients with greater illness burden.

For more information on funding and patient registration policies, please refer to the PCDP Policy and Information Guide found on the PCDP Website http://www.hlth.gov.bc.ca/care/primdemo

Lessons Learned: Funding Formula Development

1. The following recommendations of national and international health economists, a British Columbia Medical Association Liaison/PCDP Committee and the project sites themselves were implemented as part of the PCDP blended funding formula methodology:

   - That the project use a blended funding formula rather than a straight capitation formula,
   - That rather than using a set rate per person or a rate which was age/sex adjusted, the project adjust the per-person-per-day rate to reflect the medical needs of the patient population,
   - That some services remain fee-for-service and not be included in the population-based funding rate,
   - That a funding formula based on an internally recognized case-mix adjustment methodology was more acceptable than an adjuster developed in-house that had not undergone any form of scientific validation.

2. A Johns Hopkins University, Health Services Research & Development Center technical review of the PCDP's implementation of the ACG case-mix system "endorsed the path Ministry staff [took] to develop and implement an ACG-based payment system."

3. In June 1999, the Canadian Health Services Foundation tabled internationally peer reviewed recommendations on the components of optimal alternative funding models. When the components of the PCDP funding formula are compared against these recommendations (listed below in *blue*), the PCDP model converges with the recommendations, as follows:

   - The PCDP funding model has at its foundation..."*needs adjustment, rather than risk adjustment*" through the use of the Johns Hopkins ACG adjuster system. Whereas the ACG adjuster is considered a "risk adjuster", it also adjusts funding to meet registered patient's need for primary health care (as opposed to adjustment based solely on prediction of future health costs).
   - The PCDP implemented ..."*a process of formula development that incorporates a clear definition of policy objectives, continuous relationship between policymakers and technicians, and stakeholder participation*" by receiving technical guidance on ACG implementation from the Johns Hopkins University, by reviewing and modifying the funding and patient registration policies based on recommendations of the British Columbia Medical Association Liaison Committee. Policy objectives were defined at the project start-up stage, and were reviewed by B.C. stakeholders represented on the ADM's Primary Health Care Advisory Committee (medical and health associations, regional health boards and community health councils, health sector unions, and health-related university departments).
   - The PCDP implemented... "*a specific set of needs adjusters beyond age and sex*"... to adjust for health care need"...through its use of the ACG adjuster, which has been found to predict health care needs better than an adjustment based solely on age and sex.
   - The PCDP implemented... "*capitation adjusters and formula developed based on rigorous measurement principles*"...through its use of the Johns Hopkins ACG adjuster. Furthermore, the PCDP conducted a..."*validity assessment of adjusters and formula prior to implementation*"...which was reviewed and endorsed by the Johns Hopkins University.
   - With respect to conducting... "*systematic and regular evaluation and review of the funding methodology following implementation*"...the PCDP has established a quarterly monitoring and adjustment process, and the external evaluation will involve an economic analysis of the funding methodology over time. Moreover, the Johns Hopkins University has been providing on-going expert technical and policy critique to the PCDP. Through its definition of practice catchment areas based on local health area boundaries, the PCDP has incorporated the use of..."*defined boundaries to reflects established patterns of health service use.*"
   - With respect to the recommendation that... "*there must be a mechanism to combat risk selection*"...the PCDP makes use of the following: ACGs whereby payment is adjusted upward for patients who are more ill and in need of a greater amount of care. Because PCDP funding is calculated based on primary

health care "core" services, there is no outflow adjustment for specialist care and hospital care. There is no fund holding re: drug prescribing and diagnostic testing (typically required by patients with a greater illness burden). A separate payment grouping is used with respect to practice payment for care of patients with HIV/AIDS.

- PCDP incorporates the recommendation..."*for enrolled populations, use {a} capitation funding blended with other funding streams*"... through use of fee-for-service payment for "non-core" services.
- Regarding the recommendation that..."*for enrolled populations, charge backs for non-emergency outside use should be shared among the provider with whom the patient is enrolled, the outside provider, and the provincial funding agency...patients should not bear financial responsibility for outside-use*"... the patient is not financially responsible for outside-use. The PCDP adjusts practice payments for service outflows (patient receipt of "core" services from another practice). This adjustment does not occur if the "core" service was obtained outside of the practice's catchment area (normally more than 50 kilometres from the primary health care practice), or under conditions deemed an emergency situation. The practice will not lose more money on outflow than that patient's ACG payment, and therefore the annual payment for an individual patient will not be adjusted below $0.00. The outside practice does not bear financial responsibility for service outflows.
- The recommendation that..."*program or sector-specific formula with segregated funding be considered only as a policy tool to support disadvantaged or vulnerable programs or sub-populations*"...is captured in the PCDP's incorporation of a separate practice payment grouping for their special needs patients (i.e., HIV/AIDS).
- With respect to the recommendation that the..."*formula should include adjustments for geographic variation in costs of health care inputs where these can be demonstrated to be non-trivial*"... eligible PCDP physicians can claim Northern Isolation Allowance (NIA) as compensation for geographic variation.
- The PCDP has not implemented a..."*general, generic formula covering all programs and services*"...insofar as the PCDP is a pilot project aimed at testing new models of primary health care (and not the entire spectrum of health care services), with population-based funding being one component of the complete model.
- With respect to... "*the funding mechanism being designed such that primary health care providers cannot obtain personal financial benefit from reduced expenditures on referred services*...the PCDP has been monitoring referral rates, and will introduce a specific policy if required.
- The recommendation that ...*funding for geographically defined populations should reflect*...the scope of services available within the geographic area...is addressed in that the PCDP population-based funding formula is based on core GP services that all GPs should provide regardless of geographic location. Other services (e.g., anesthesis, emergency, and obstetric services), remain fee-for-service.

4. An independent research study comparing the performance of the ACG case mix system in British Columbia and Manitoba reported a correlation between ACG assignment and physician services costs that is as strong as in published studies in other jurisdictions. Specifically, ACG assignment explained 57% of individual variance from the average primary health care physician services costs in the same year that their ACG was assigned, and 25% of an individual's variation from the average cost in the year following ACG assignment. However, an age and gender adjustment alone explained only 6.7% of the variance when using B. C. data. This finding is in general agreement with what is know historically about the value of age/gender adjustment as a predictor or explainer of individual costs.

This research report on the performance of the Johns Hopkins ACG case mix adjustment system also demonstrated that the diagnostic (ICD-9) data submitted by B. C. physicians with their billing data is robust enough to use this case mix adjustment system.

Lessons Learned: Funding Formula Performance

1. Analyses conducted on PCDP project site data indicated that the population-based funding accounts for approximately 70% of practices' total incomes.
2. Data analyses conducted on Year 1 data indicate that patient ACG rates increased as the patients became more ill, and thus required more physician services (see Figure 1).

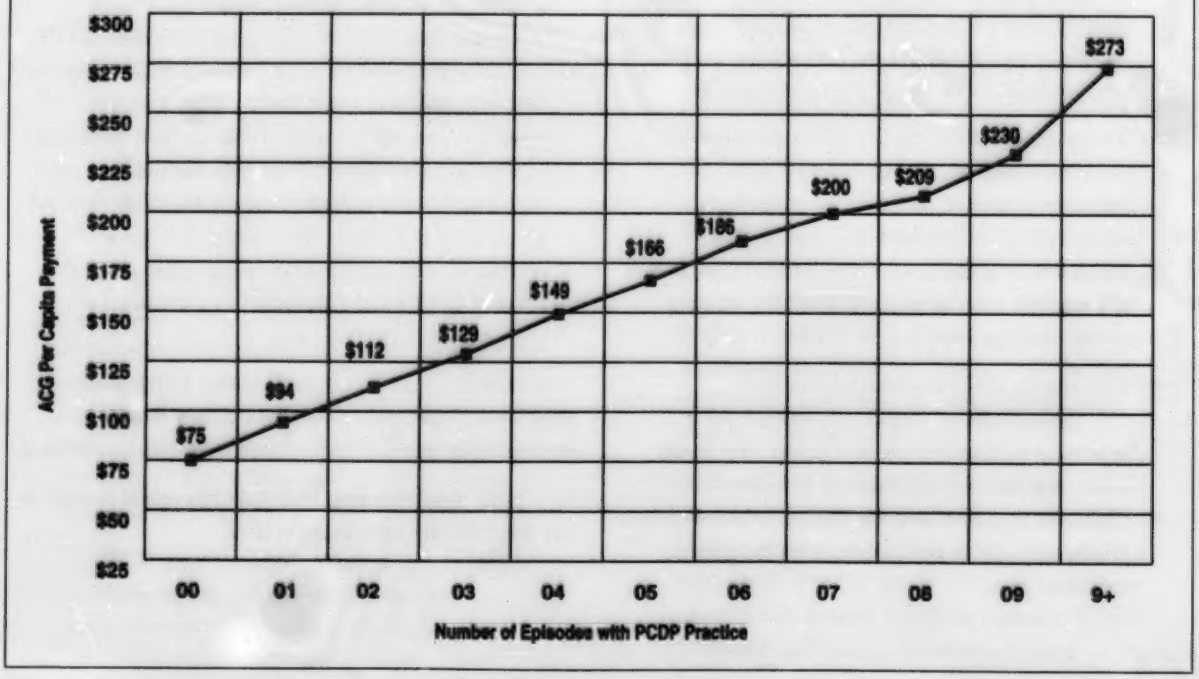
The analysis indicated that the ACG-based funding is working as expected – it is sensitive to patient health status, and adjusts funding based on the amount of care the patient needs. This conclusion flows from the fact that there is no financial incentive associated with volume of services under this funding model because practices are no longer paid for the number of primary care services provided. As such, provision of services is instead considered to reflect patient care needs.

Because the Johns Hopkins ACG adjusts funding based on patient health status, practices are more fairly compensated for care provided to patients with differing health care needs than would a model that is based on an age/sex adjustment alone. Moreover, there is no financial disincentive with respect to caring for patients with more complex health problems (i.e., "cream skimming" or "cherry picking") because these patient are funded at a higher rate than those who require less medical attention.

As is evident in Figures 2a-2b, the PCDP sites did not register only healthier patients ("cream skim") and de-register sicker patients ("cherry pick").

3. The research literature has suggested that under a population-based funding approach the possibility of increased patient "off-loading" or referral to specialists exists. A preliminary comparison of specialist referral rates pre- and post - PCDP implementation found no evidence of increased referral of patients to specialists after the practices switched to the PCDP blended population-based funding methodology (see Figures 3a - 3c).

Figure 1
Performance of ACG Clusters in Measuring Primary Care Health Needs
For Patients Registered to All Practices for the Period between April and December 2000.



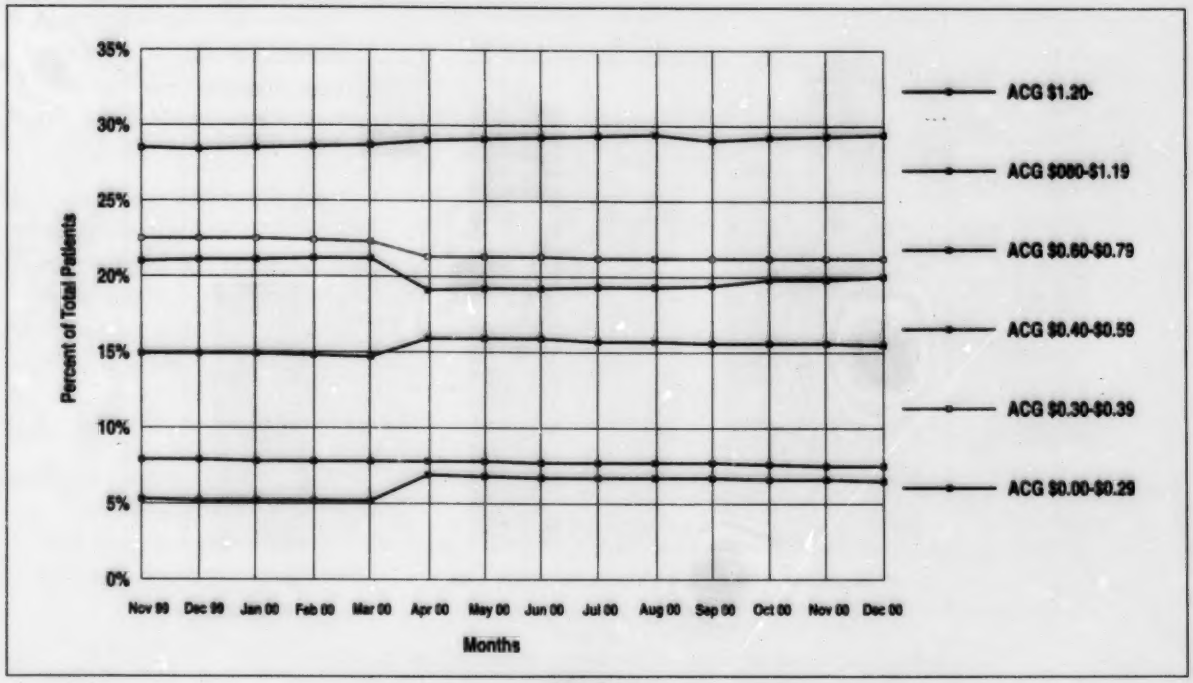


Figure 2a
Registered Patients by ACG Daily Payment Groups by Month
From November 1999 to December 2000

4. Services to non-registered patients remain fee-for-service. As shown in Figure 4a, there was no evidence of an increase in the provision of services to non-registered patients. Non core services also remain fee-for-service. As shown in Figure 4b there was no evidence of a shift towards providing more non core services.

These results indicate that the project policies support the PCDP practices in assuming responsibility for the health of a defined patient population. It should be noted that the increase in fee-for-service billings during the month of August reflects individuals on vacation (i.e., transient patients) accessing services from a PCDP practice.

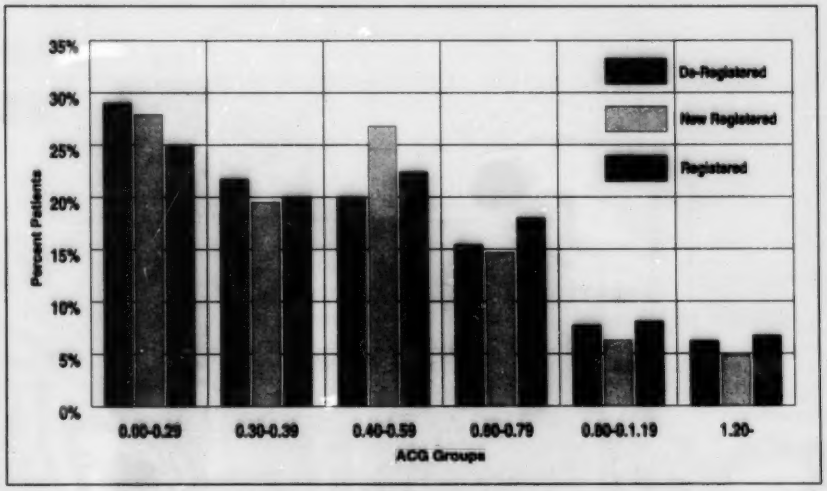


Figure 2b
Percent of Patients by ACG Daily Payment Groups for Registered, Newly Registered and De-Registered Patients.

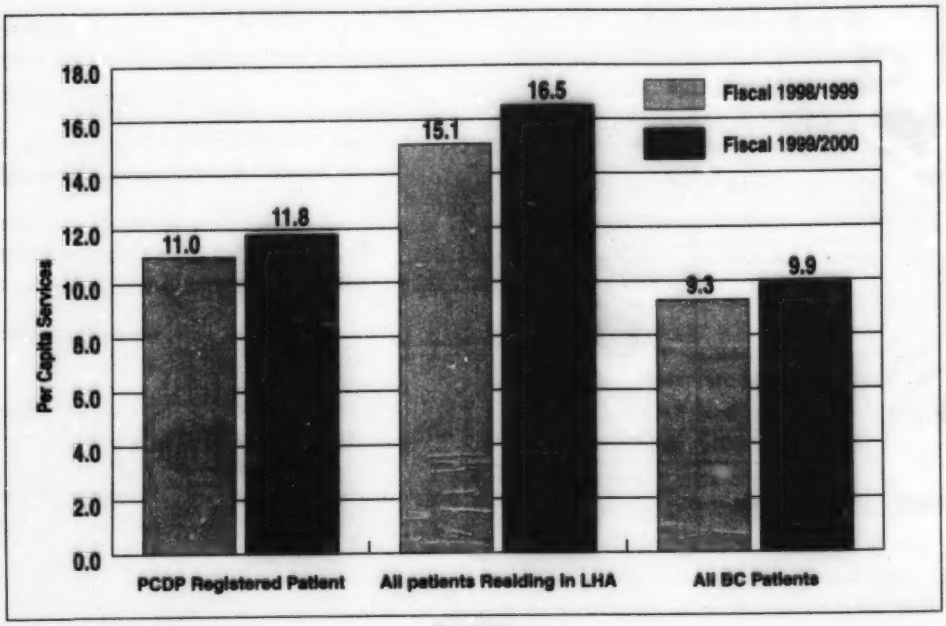


Figure 3a
General Practitioner Referrals– All Specialist Services for PCDP Registered Clients, Patients Residing in PCDP Local Health Area (LHA), and All BC Patients

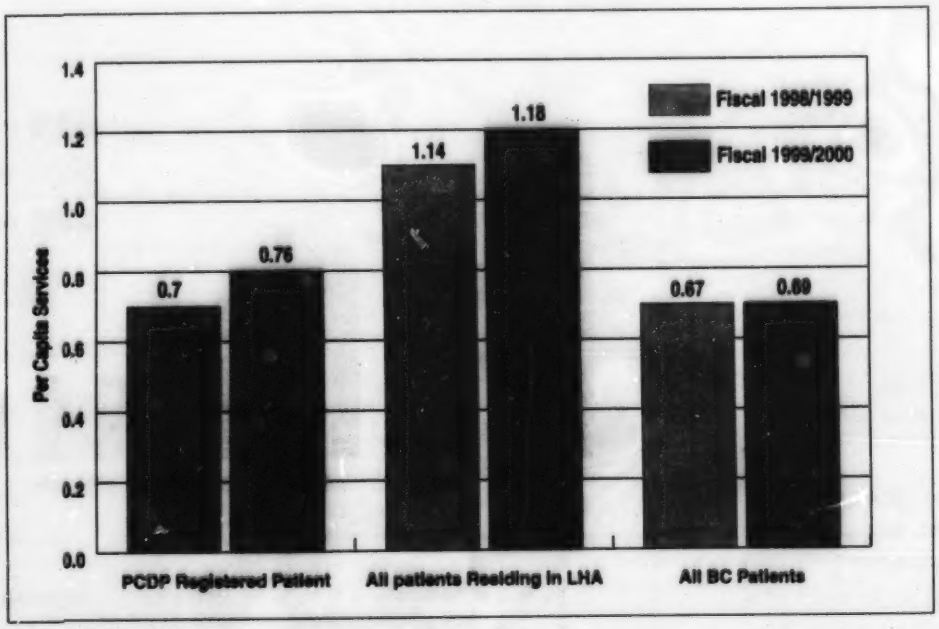


Figure 3b
General Practitioner Specialist Referrals: Consultation Services for PCDP Registered Patients, All Patients Residing in Local Health Area (LHA), and All BC Patients

5. In their interviews with project physicians, the external evaluators concluded that the physicians find the ACG funding system satisfactory.

6. While written information and presentations were conducted, many physicians noted that more, and repeated, training on the population-based funding formula would have been helpful given the newness of both the concepts and processes involved.

7. Working under a blended funding model was a significant departure from what most of the physicians were accustomed. Providing a period of guaranteed funding during project implementation would have alleviated initial concerns around income loss, in turn affording the peace of mind to better focus energy on developing and implementing the key components of the model.

8. Each PCDP practice experienced an increase in income under population-based funding. This was expected as the formula adjusts for difference in patient health status, rewards practices for continuity of care (i.e., reduced outflows), and funding increases as more patients are added to the patient register.

9. As shown in Figure 5a, patient costs have not increased over time. Furthermore, no difference was observed between the average cost per service for registered patients and non registered patients (See Figure 5b).

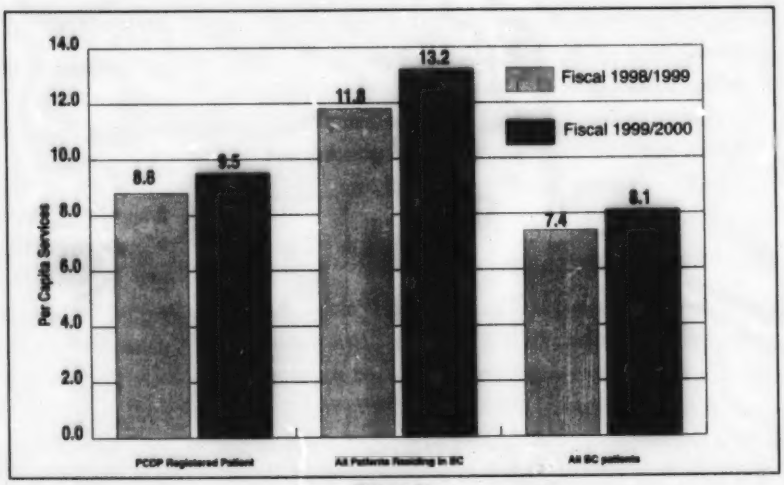


Figure 3c
General Practitioner Referrals: Specialist Diagnostic Services for PCDP Registered Patients, All Patients Residing in Local Health Area (LHA), and All BC Patients

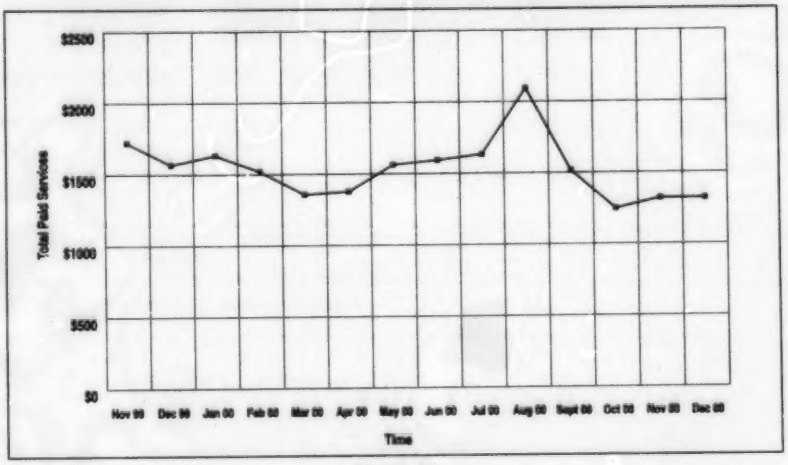


Figure 4a
Paid Services by Month for Non-Registered Patients
For Patients Not Registered at the Time of Visit for the Period Nov 99 to Dec 99

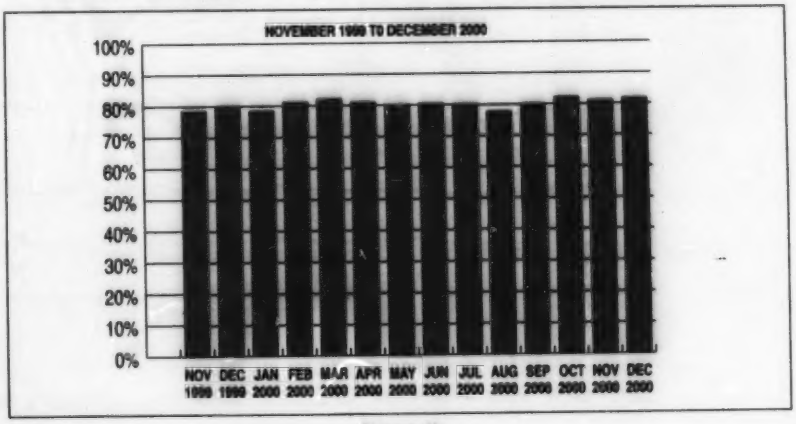


Figure 4b
MSP Encounter Services as a Percent of Total Services

10. Preliminary results suggest that the average monthly cost of registered patients is less than that of non registered patients (See Figure 6). This might be attributable to registered patients' choosing to obtain their primary health care from one family physician practice, and therefore receiving better continuity of care.

Outflows

Under the population-based funding methodology, the practice receives 100% of the population-based ACG payment rate for each registered patient (and payments are made in quarterly installments). However, if a registered patient receives a core service(s) from another practice located in the same practice catchment area, the fee-for-service payment(s) made to the other practice will be deducted from the population-based funding payment that the practice will receive in the next quarter.

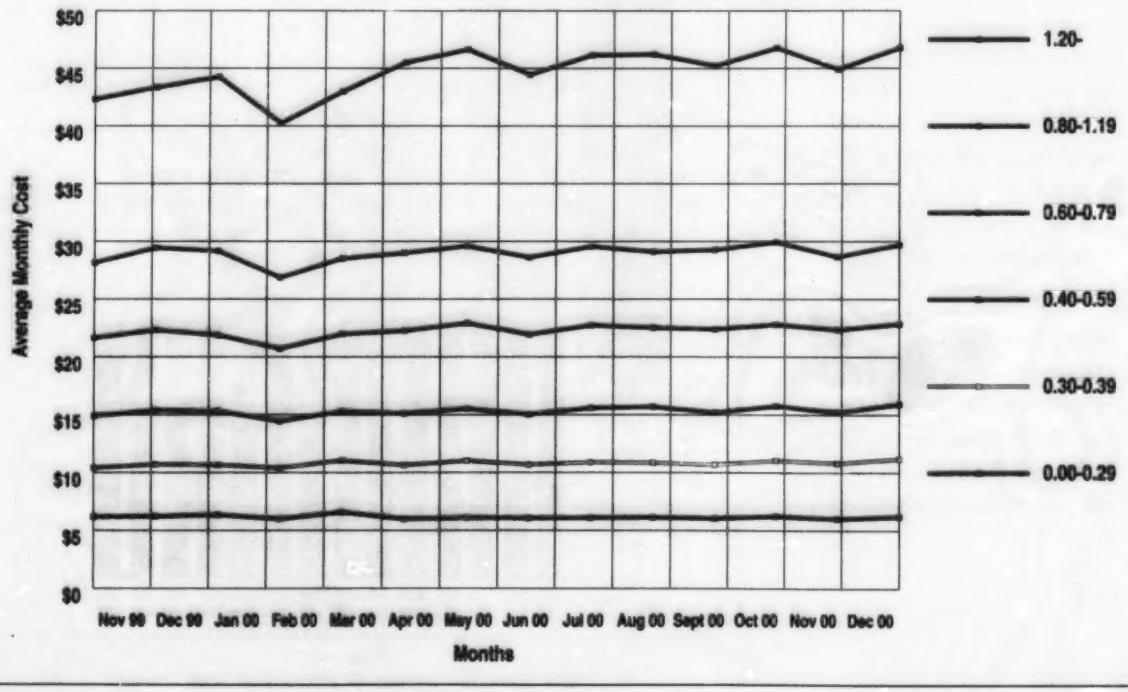
Lessons Learned

1. The outflow patterns of the practices' registered patient were monitored over the past year, and it was found that patient outflows have steadily decreased over time (See Figure 7).

It should be noted that during the course of the project it was discovered that the policies and associated processes that were used to develop the initial patient register required modification in order to ensure that only those patients who were receiving the majority of their primary care from the practice were registered. The higher rate of outflows initially experienced by the practices resulted from the registration of patients who did not receive the majority of their care from the practices. The initial drop in outflows over the first four months were mainly the result of registering new patients with low outflow rates; this in turn reduced the impact (i.e., outflows as a percentage of the total ACG payment) of the patients who should not have been registered with the practice.

Figure 7 shows what the outflow pattern would have been if the initial patient register had included only those patients

Figure 5a
Average Monthly Cost by ACG Daily Payment Groups
From November 1999 to December 2000



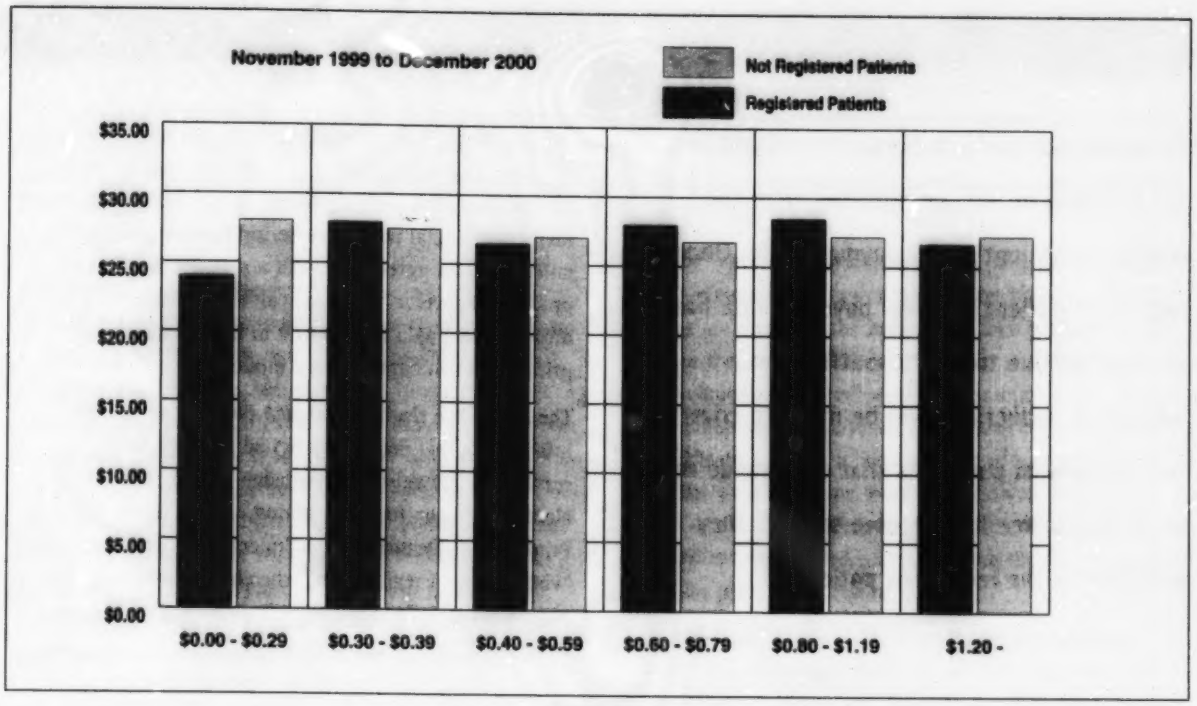


Figure 5b
Total Cost Per Service By ACG Daily Payment Groups For Registered and Not/(never) Registered Patients

who were receiving the majority of their care from the practice (as opposed to also including those patients who sought care from many different family physician practices). As shown, patient outflows are less problematic than initially expected, starting off at 14% and then steadily declining overtime (8.97%).

In terms of the patient registration pattern observed following the patient registration policy change, the overall decrease in outflows is probably attributable to patient education by the practices on the benefits of continuity of care, the extended hours of clinical practice provided by the sites, and practices' ensuring that they register only those patients who would be receiving the majority of their primary health care from them.

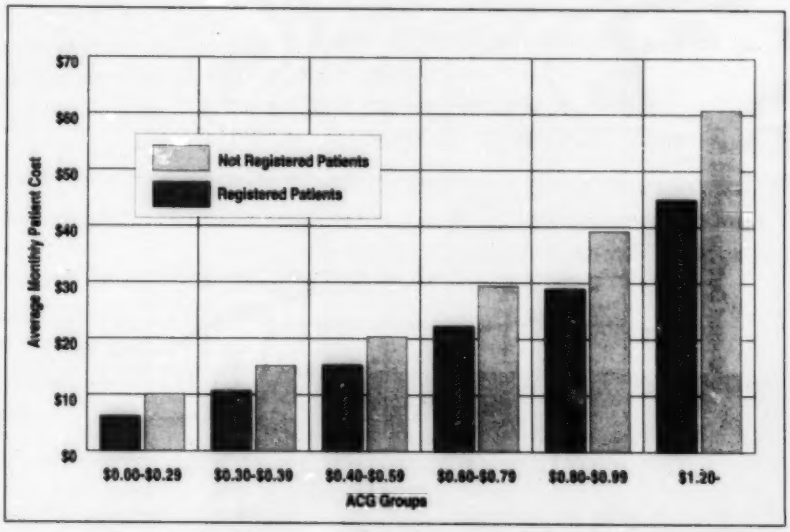


Figure 6
Average Monthly Patient Cost by ACG Daily Payment Groups for Registered and Not Registered Patients

On an annual basis, the practice will not lose more money on service outflows than the registered patient's ACG payment rate. Once a registered patient's annual payment rate has reached $0 due to service outflows, no additional deductions will be made to cover the fee-for-service payments that were made to another practice for the core services they provided to the registered patient.

In order to implement a population-based funding model, the population of patients must be well-defined. The 1997 *National Forum on Health* report identified formal patient rostering (whereby a patient enters into an agreement with a primary health care practice to receive all their health care from the organization) as a key feature of a fully integrated primary health care delivery model.

The aim of the *Health Transition Fund* is to generate information that makes an original and significant contribution to existing knowledge. A body of research already exists on formal rostering, and therefore the Primary Care Demonstration Project developed and tested "virtual patient registration" whereby a practice's patient population is defined retrospectively through a historical analysis of past claims data.

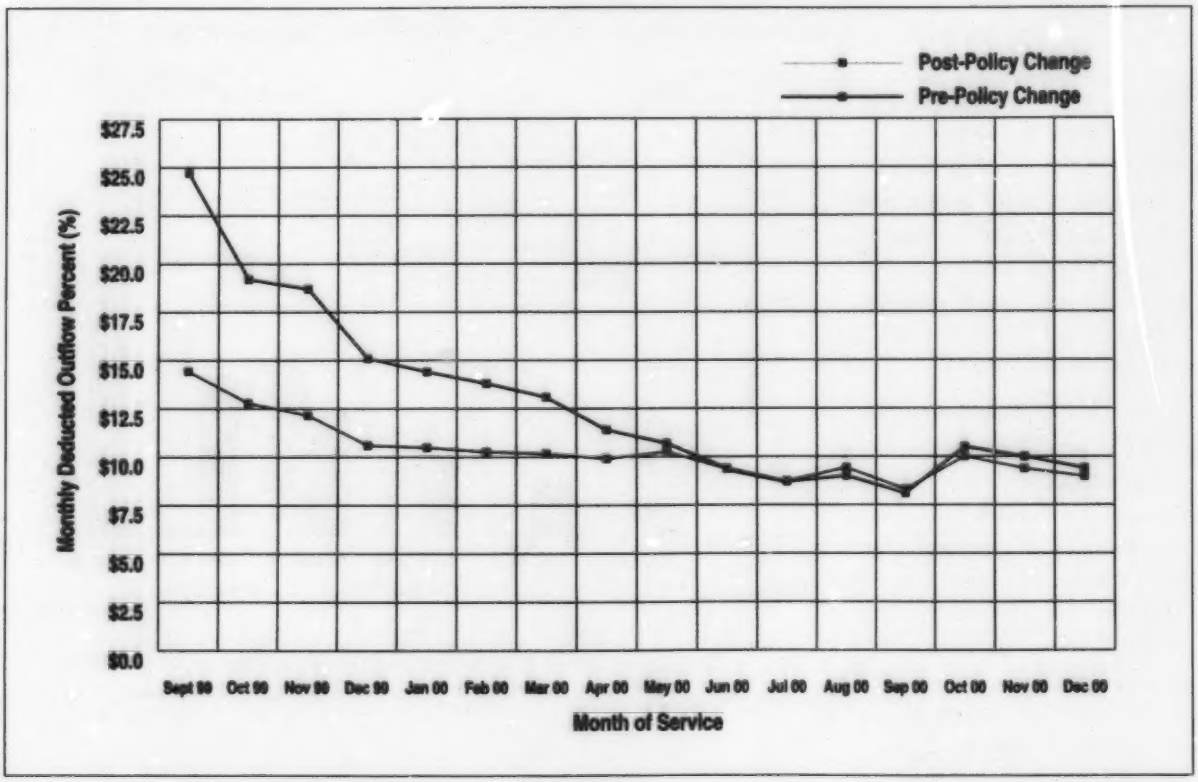


Figure 7
Percent of Monthly Deducted Outflow to Total Monthly ACG Payment By Month of Service from September 1999 to December 2000

To ensure that funding accurately reflects the health needs of the patient population, the practice maintains an up-to-date registry of its patient population, and practice funding is recalculated on a quarterly basis. The PCDP developed rules by which to determine patient registration status, and an automated process to update patient registers on a quarterly basis.

With virtual patient registration, patients are not required to enter into a formal agreement to receive their care from a specific primary health care practice, and in accordance with the Canada Health Act, patients continue to be free to access medical services outside the practice or change their family physician at any time. The PCDP supported patient education by funding the development and distribution of brochures that informed patients of the project goals, the benefits of continuity of care, and how virtual patient registration works. Many project sites also embarked on public education in the form of newsletters and participation in community forums and health fairs.

Lessons Learned

1. At project start-up, many project sites noted a preference for formal rostering (whereby a patient is required to make a formal commitment to obtain his/her primary health care from a particular practice.) In the absence of formal rostering, the project sites expressed reservations about adjusting the practice's funding when a patient receives medical services outside of the practice. In response, the PCDP office supported the practice sites by monitoring patient outflows and providing general information on outflow patterns so that practices could develop an appropriate patient education strategy. As previously noted in this report, outflows were relatively low at project start-up and have steadily decreased over the past year.
2. It was recommended that responsibility for updating and maintaining the patient register (and associated data entry requirements) be delegated to the Medical Office Assistant (MOA), as physicians were initially assuming this task. While written information was provided and on-site training visits were conducted, the most useful training format was a group training workshop which brought together the individuals responsible for patient registration from all the project sites.
3. Given the newness of both the concepts and processes involved in "virtual patient registration," all project participants should participate in information/training sessions. The PCDP found that it was also beneficial to repeat the information/training sessions when requested by the project sites.
4. With "virtual" patient registration, patients are added and removed from a practice register based on whether they are receiving the majority of their primary care from the practice. The initial patient register was developed from a review of each practice's past 3 years of claims data. As a result of the project's initial de-registration policy, a large number of patients in the initial patient register were de-registered, resulting in the dramatic drop (from 26,341 to 25,349) in the number of registered patients during the first 10 months of the project (see Figure 8).

An operational analysis of the initial patient register created was undertaken to determine the reason for the large number of de-registrations. It was found that there were a number of patients who should not have been registered with the practice because they were not receiving the majority of their primary care from the practice. In turn, the patient registration policies and associated processes were modified to ensure that only those patients who received the majority of their primary care from the practice become registered.

Figure 8 shows the actual pattern of patient registration following modification of the initial patient registration policy. As is evident, the number of patient registrations have steadily increased over time.

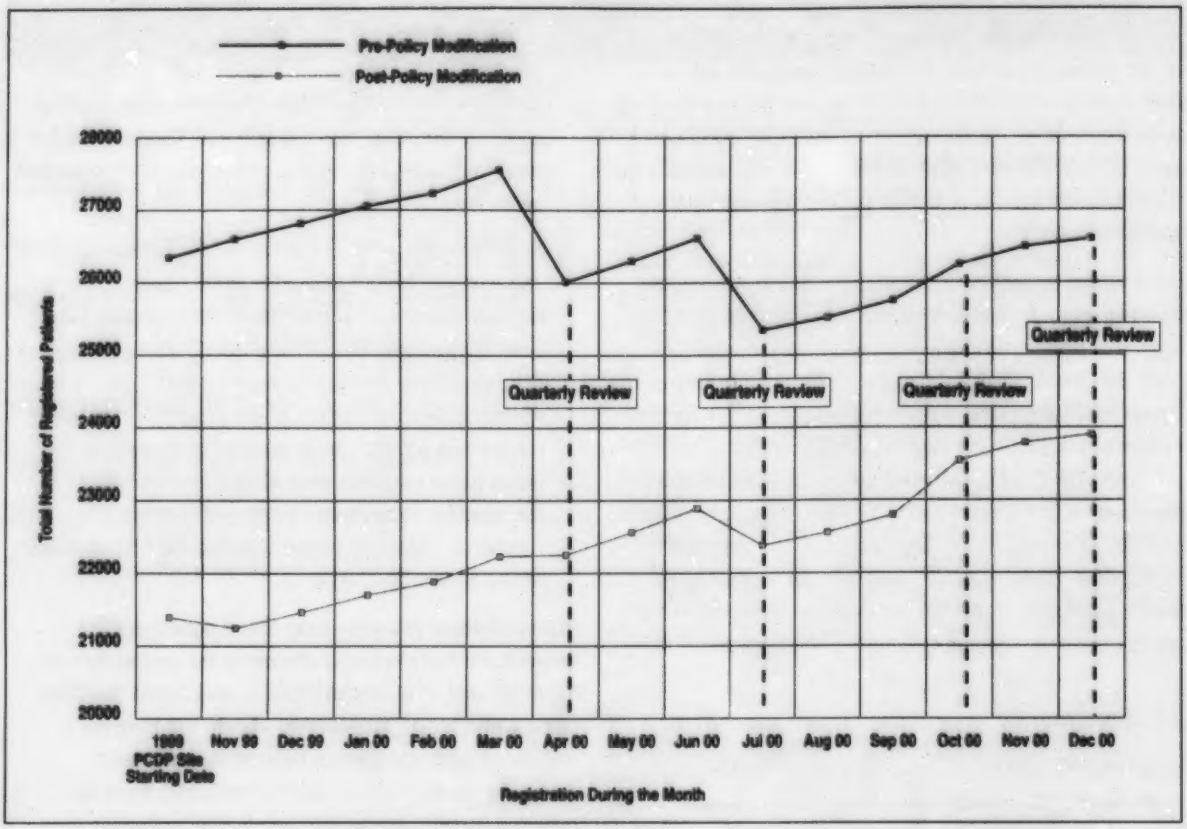


Figure 8
Total Number of Registered Patients by Month for All PCDP sites

It must be noted at the outset that the PCDP model is a fundamentally different way of delivering primary health care to what most family physicians in British Columbia are accustomed. Implementing the components required developing new approaches to primary health care delivery which, in turn, required the development of new knowledge and roles. These changes were undertaken on top of the daily work of providing quality health care to very large patient caseloads, within a short project timeframe, while at the same time encountering unexpected computer system implementation challenges.

Similarly, the Ministry of Health staff also found the short project time frame to be challenging as the PCDP involved – developing from the ground up – the blended population-based funding formula, the "virtual patient registration" model, project policies, and the associated administrative structures. Considerable research, expert consultation, programming and data analysis work had to be undertaken, often with limited human resources.

Computer System Implementation

Blended funding uses both a population-based funding and a fee-for-service component. This requires the submission of two kinds of data records to the Ministry of Health: (1) a fee-for-service claim which is used to issue a fee-for-service payment; and (2) a $0 patient encounter record which is used in re-calculating the population-based funding that a practice receives, and for patient, practitioner, and practice profiles.

These data submission requirements in turn necessitated extensive infrastructure changes for the Medical Service Plan, Claims System. The programming changes were substantial, complex, and not fully operational upon project site implementation start-up as modification was sometimes required. In addition, medical software vendors participating in the project also needed to modify their software to support the data reporting changes (the choice of which vendor software to acquire rested with each project site, which resulted in a total of four different vendors initially participating in the PCDP).

The information contained in a fee-for-service claim and a patient encounter record is virtually the same. The difference rests in when the information is submitted as an encounter record or as a fee-for-service claim record (and in the type of payment issued). All data is submitted to the Ministry of Health electronically through the Medical Services Plan Claims System (i.e., Teleplan). In order to receive and process the fee-for-service claims and patient encounter records correctly, significant modifications had to be made to the Teleplan system.

Due to the short project timeframe, the medical software vendors participating in the project were developing and testing their clinical software applications concurrently with the sites' implementation of the software within their practice. In addition, once contracts were signed with the PCDP sites, funds were released for the sites to purchase their clinical information management systems. As a result, the modifications to vendor software began at the same time as the project sites began implementing the other primary health care delivery model components.

For most sites, the modifications were not easily implemented and the project site staff spent a considerable amount of time trouble-shooting (e.g., records were submitted via Teleplan only to be rejected {and requiring re-submission}), and communicating the problems to their vendors and Ministry technical staff. There was confusion as to whether the root of the problem was the vendor software, the Ministry Claims system, site hardware, or data entry problems.

For some sites, the computer-related challenges were compounded by the fact that they were installing very large, and complex integrated clinical information management systems that would enable medical practitioners to communicate with the region's hospital(s), diagnostic laboratories, and other agencies, and embark

upon electronic patient records enhancement. In response to the difficulties being experienced, the Ministry of Health assigned a systems consultant to work with the systems vendors to identify the problems, their origins, and make the appropriate changes.

In the majority of cases, the project sites chose to change their systems software vendors from the one they had originally selected at project start-up. This resulted in the sites having to purchase, install, receive training, and act as 'testers' for the new vendor's software modifications. This, in turn, was time consuming.

To date...

- All seven PCDP sites have switched to the same clinical information systems vendor. This vendor has successfully modified the billing and patient registration components of their software to support the PCDP requirements, in addition to the requirements of standard fee-for-service billing. The system also includes electronic patient records management and decision support functionality that the physicians and other health care professionals are finding to be valuable in their day-to-day practice.
- The encounter data submission problems did not interfere with practice receipt of their population-based funding, but did temporarily impact fee-for-service (ffs) payments. In response, the Ministry of Health provided ffs advances (based on the previous year's ffs billings) to the sites to cover the ffs income shortfalls that they were experiencing due to difficulties submitting their ffs billings via their vendor software and the Teleplan System.
- In terms of computer systems architecture and programming changes, the modifications to the MSP Claims systems which enabled receipt of both encounter records and ffs billings were substantial, complex and required modification. In order to reduce claims and encounter record rejections due to submission of the wrong type of data record, an internal record conversion process was implemented that would automatically adjust the record to the appropriate format and payment modality. This has resulted in a records processing environment that is now akin to the longstanding fee-for-service payment process–with the same proportion of record rejections as the fee-for-service system.
- The computer implementation phase was time consuming and frustrating for all the sites. To date however, the PCDP sites note that the systems implementation challenges have for the most part been resolved, and they are now embarking on using their clinical information management technology to its full capability. The challenge for some physicians has been finding the time to learn how to use the technology – many have opted to implement use of the technology incrementally with the end result being the development of the electronic medical record.

Lessons Learned

1. Based on the lessons learned from the evaluation of a previous Ministry of Health project that had an advance clinical information management component, the PCDP made a conscious decision to allow each site to acquire a clinical information management system of their own choosing. This approach was considered preferable to mandating a common clinical information management system across all sites, as each practice appeared to have differing systems needs, preferences, and varying levels of readiness regarding implementation of advanced technology (i.e., fully integrated systems).

The PCDP Office provided each project site with guidelines to computer technology acquisitions, and software vendors were informed of the opportunity to have their company placed on a list of interested vendors for distribution to the practice sites if their product met the functionality requirements of the project. Apart from this involvement, the acquisition choices rested solely with the practices (which had to make a business care regarding their acquisition request).

The challenges experience in the PCDP were the result of there not being an operational (and fully tested) product available on the market during the project implementation phase. Had the project timelines been longer, there would have been greater opportunity to develop and test the product outside of the day-to-day operations of the primary health care practices.

"...Have the computers do what they were meant to do prior to the project start. The computer billing was the biggest disaster... I hardly saw my wife for 6 months..."

- quote from PCDP site participant

Moreover, while a Ministry-based system consultant was available to act as liaison between the practices and systems vendors, given the short project timelines the transition would have been facilitated if each site had been given start-up funding to hire their own on-site expert systems consultant to work directly with the systems vendors in implementing the clinical information systems hardware and software.

"On-site support would have been beneficial to figure things out as they came up rather than over the phone...."

- quote from PCDP site participant

2. Training regarding the use of the clinical information management software to its full capabilities was noted to be helpful, and such training was provided. The sites noted that it was helpful to have the opportunity to meet with the software vendor as a group to discuss software modifications that would make the computer system more user friendly and improve functionality.

Lessons Learned: Implementation of the Other Delivery Model Key Components

1. The primary health care delivery model being tested in the PCDP represents a significant departure from how primary health care has historically been delivered in British Columbia. Project participants found that the implementation timeline was unrealistic with too much change being attempted within too short a timeframe.

Whereas the project sites have made significant progress in implementing the key components, it is estimated that full implementation of the model will take more time (from 6 months, to 1 year in some cases).

Final key model components that most sites are currently implementing include developing formal case management protocols for an integrated group practice, and establishing their electronic medical record.

2. Challenges faced with respect to implementing the computer clinical information management system proved the most time (and effort) consuming, invariably delaying implementation of the other key model components. During the course of the year, many project sites switched to a different software vendor, resulting in further delays in implementing their computer system.

3. During site visits, all projects noted that a staged implementation approach would have made the change more manageable, less demanding, and less stressful. Their recommendations on how to stage implementation were to: (1) establish the group practice first; (2) move to the new funding model and implement the computer system modifications needed for patient encounter data submission; (3) integrate the other health care professionals into the team; (4) implement the advanced clinical information technology; and (5) work on expanding the practice's patient register.

Furthermore, it was noted that the stages involved in implementing a component should be embarked upon incrementally. For example, the computer functionality should start with patient scheduling, billing, and patient registration/data submission, then followed by implementation of the other components (i.e., prescription renewal, electronic medical record). It was also recommended that the other health care professionals should be brought on when their roles are defined and thus more easily integrated into the team.

"...We would stage things – not change everything at once, take more time for the advance preparation and planning, learn from our mistakes – particularly about the computers and on-site support needs, clarify our expectations, and be more mindful of people issues and teamwork, and of being inclusive...."

"...We totally underestimated how much time new changes would take for all..."

"...What would we have done differently? We would not have tried to do everything at once. We were lucky not to have to face renovations right away. Because if we had to do that and get the computer, and hire a nurse, and change the way we bill, and practice medicine differently it would have been awful. It was awful. I would have done it more slowly, perhaps the billing first, then the computers before anything else..."

– quotes from PCDP sites participants

4. It was noted that with respect to re-organizing from individual private practices into a group practice takes time – a minimum of 6 months was cited as the time period needed to make this transition. Also recommended was contact with other physicians already in a group practice from whom advice and guidance on how to develop and manage this type of practice could be sought.

The time period for this transition was longer for some projects, in that forming a group practice for some of the sites also encompassed a move of individual family physician practices to one location. This required notifying patients of the move, breaking and entering into new lease agreements, setting up the new office, installing new telephone systems, hiring and training new office staff, and finally getting to know one another as colleagues who would now be working together and sharing responsibility for patient care.

While re-organizing into a group practice was challenging, most of the physicians noted this type of practice to be rewarding. For example, patient access to care has improved as a result of physicians covering for each other by sharing responsibility for patient care. Some projects have noted that patients are now less likely to wait until their regular physician returns to seek the care they need, or alternatively seek care outside of the practice thus disrupting the continuity of their care. Due to this coverage, some physicians have noted that they could take more "downtime", which has allowed for greater participation in conferences and educational opportunities, more time to write papers, and more family vacation time.

5. The majority of the projects noted that receipt of a template on how to allocate the population-based funding among the physicians would have been helpful. Such a template and medical consultant advice on this issue were made available.

6. A medical consultant with experience practising under the type of primary health care model being implemented is essential with respect to providing advice on the practical aspects of developing and working under the model.

7. While written information and presentations were conducted, many participants noted that more, and repeated, training on the population-based funding formula, patient registration policies, and associated data entry requirements would have been helpful given the newness of both the concepts and processes involved. In particular, clarity was needed regarding the medical office assistant's role/lead in the administrative aspects of data submission and updating the practice's patient register. Such training sessions were provided by the PCDP office and noted to be useful.

8. Group meetings where the project participants could share information on their projects were considered to be helpful. Essentially, in the context of a pilot project in which participants were charting new territory, the sites noted that it was helpful to have the opportunity to discuss with one another what was working well, what were the challenges, and learning from others about how they were addressing challenges encountered.

Also, some participants said that hearing about where others were in terms of implementing their model gave them perspective on their own accomplishments, and a sense of what was realistic, and what would take more time. Other participants noted that the meetings helped to stimulated new ideas, and provided a conceptual framework that would help guide their planning and development activities.

"...Need workshops first, for new sites. People know their own area. No one knows all of the project, all of the pieces...."

"...Emphasis on better, earlier preparation and getting everybody on board. Sorting job responsibilities in view of these earlier challenges and because there is a lack of understanding of how it works. Greater comfort at each step...."

– quotes from PCDP sites participants

9. Site visits were helpful in developing an understanding of where the PCDP office could offer assistance that would not only move the project along, but provided valuable insight into some of the practical realities of changing over to a new model of primary health care delivery.

10. The role of the nurse on each of the multidisciplinary teams has evolved over the course of the project, and continues to evolve for the majority of the PCDP participants. All sites note that the nurse member of the team is important in the provision of the full scope of primary health care, and most physicians feel that the practices require more than one nurse.

PCDP GOAL: To Optimize Health Care Professional Job Satisfaction

In December 2000, external evaluators undertook a quality of work life survey. Physicians, medical office assistants, nurses, and other health care professionals (e.g., nutritionists, pharmacists, social workers, respiratory therapists) completed the survey, resulting in a response rate of 90% of all health care professionals participating in the PCDP.

The survey results were as follows:

1. All of the health care professionals indicated that they found their work interesting, and that their work is more interesting as a result of the PCDP; that they have opportunities to use initiative in their work, and that it is less difficult to participate in professional development than it was previously. The survey results indicate that the health care providers enjoy their job, and report that they find their work fulfilling.

2. All of the health care professionals indicated that they are satisfied that their work provides them with challenging opportunities to use their skills and initiative, and that their occupations are interesting. While Medical Office Assistant responses were positive, many tended to feel that their skills are not being utilized to their fullest advantage. Several nurses noted a desire for further professional development opportunities.

3. Both the physicians, nurses, and other health care professionals feel that the PCDP allows them to deliver a better quality of health care.

4. Most of the health care professionals indicated that their team is working together as a team in a reasonably effective matter, and respondents noted clarity about their own roles within their work setting. Several physicians' comments indicated that they were finding it difficult to find time to work together as a team. Comments from a number of respondents noted that difficulties in working as a team were greatest during the earlier stages of the project.

"...Day by day we get clearer and more efficient. This is a process. One must be in it for the long haul..."

- quote from PCDP site participant

5. As previously mentioned in this report, the implementation of the PCDP primary health care delivery model was challenging due to the complexity and amount of change that was undertaken in a short timeframe. Survey responses indicated that PCDP participation had been demanding and sometimes stressful...however...

6. The survey reported that the physicians, nurses, and other health care providers are pleased to be participating in the PCDP.

Patient Satisfaction

A patient satisfaction survey was conducted by the external evaluators between the months of July 11, 2000 and November 10, 2000. The survey information was collected from PCDP site registered patients, and from a comparison group comprised of B. C. patients who did not receive their primary health care from a PCDP site (but were matched in terms of age, gender, region, and adjusted clinical group).

The survey sample size was 2,400 patients who had received health services from their physician in the three months preceding the telephone survey. The valid response rate for the registered patients and comparison group patients was 61.6% and 64% respectively.

- Overall, the majority of patients in both groups indicated that they were satisfied with the health care services provided by their doctor during their last visit (See Table 1).
- As shown in Table 2, some difference in patient satisfaction emerged in the area of satisfaction with access to primary health care services.

Table 1
Information about Current Health Condition by Patient Group

The doctor paid attention to what I had to say.				
• Registered PCDP Patients	2.0%	4.9%	92.6%	NS
• Comparison Group Patients	2.7%	6.0%	90.6%	
The doctor explained things in a way that I could understand.				
• Registered PCDP Patients	1.3%	2.8%	95.5%	S
• Comparison Group Patients	2.9%	4.8%	91.5%	
I was satisfied with the information I got about my health problem.				
• Registered PCDP Patients	4.1%	7.2%	87.9%	NS
• Comparison Group Patients	5.1%	9.2%	84.2%	
I have enough knowledge about my health problems.				
• Registered PCDP Patients	5.8%	10.2%	82.8%	NS
• Comparison Group Patients	5.5%	13.3%	79.2%	
Overall, I am satisfied with the health care services I received from my doctor during my most recent visit to him/her.				
• Registered PCDP Patients	2.8%	5.2%	91.6%	S
• Comparison Group Patients	3.7%	8.9%	87.1%	
Survey average				
• Registered PCDP Patients	3.2%	6.1%	90.1%	
• Comparison Group Patients	4.0%	8.4%	86.5%	

*Registered PCDP Patients n=1545; Comparison Group Patient n=587; Total sample n=2132
** Don't Know/No Response categories are not listed in table so percentages may not add up to 100%

Table 2
Accessibility to Primary Health Care by Patient Group

The location of the office or clinic made it easy to get to.				
• Registered PCDP Patients	6.1%	8.7%	84.8%	NS
• Comparison Group Patients	3.6%	9.2%	86.5%	
When I needed an appointment, I was able to get one at a time that fit my schedule.				
• Registered PCDP Patients	6.1%	10.2%	83.2%	NS
• Comparison Group Patients	6.8%	9.2%	85.5%	
The regular office hours of my doctor's office met my needs.				
• Registered PCDP Patients	4.5%	8.22%	86.6%	S
• Comparison Group Patients	6.8%	10.4%	82.1%	
I was satisfied with after-hours access to my doctor's office.				
• Registered PCDP Patients	11.7%	7.9%	41.6%	S
• Comparison Group Patients	17.5%	7.8%	33.4%	
I got an appointment to see the doctor within a reasonable time.				
• Registered PCDP Patients	2.8%	6.3%	90.2%	NS
• Comparison Group Patients	4.9%	6.5%	87.4%	
When I arrived for my appointment, I was able to see the doctor within a reasonable amount of time				
• Registered PCDP Patients	8.0%	9.4%	82.3%	S
• Comparison Group Patients	10.2%	12.8%	76.3%	
My doctor's office was sensitive to my language and culture				
• Registered PCDP Patients	0.8%	1.5%	75.0%	S
• Comparison Group Patients	2.2%	2.4%	77.4%	
My doctor's office was sensitive to my physical disability				
• Registered PCDP Patients	3.2%	1.9%	46.3%	S
• Comparison Group Patients	4.0%	3.7%	43.6%	
Survey Average Across Access Issues				
• Registered PCDP Patients	3.2%	6.8%	73.8%	
• Comparison Group Patients	4.0%	7.8%	71.1%	

*Registered PCDP Patients n=1545; Comparison Group Patient n=587; Total sample n=2132
** Don't Know/No Response categories are not listed in table so percentages may not add up to 100%

PCDP GOAL: To Encourage and Enhance Multidisciplinary Team-Based, Patient-Centered Care

My role as a public health nurse has not changed with the project. I do, however receive more referrals from other team members now, (since) they are clearer on my role and are more willing to refer.

The addition of a nurse has made a positive improvement in patient care on an individual basis... (especially) I have been unable to find time to see patients in the community, as well as seeing new patients on intake and doing some re-visits.

- quotes from PCDP site participants

Interviews with project stakeholders in February 2001 indicated that:

- The nurses feel that the opportunity to work in a primary health care setting is rewarding, and all those interviewed indicated that they would like to continue working under the PCDP model.
- All the nurses interviewed considered their role had been integrated into the practice, and the practice was providing patient-centered care where efforts were being made to address all the patient health care needs. This included referral to appropriate community-based services (both health and social services).
- The physicians note that the nurses have become an indispensable part of their primary health care delivery. Some project sites noted it would have been helpful to have received upon project start-up a framework on the role of the nurse in primary health care to help guide team role development.
- As shown in Figure 9, nurses are assuming more responsibility for the provision of direct patient care. This data should be interpreted with caution as many nurses have noted a learning curve during the course of the project that affected consistent data collection and submission.

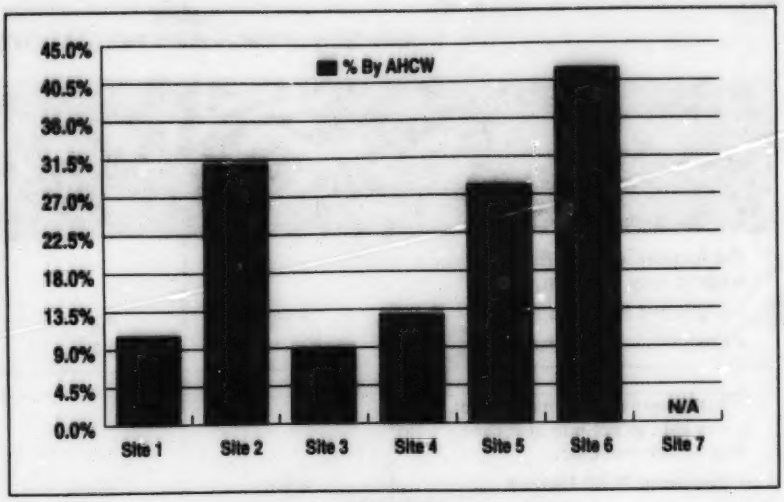


Figure 9
Primary Care Demonstration Project Practitioner Encounter Services for the Period January 4, 2000 - December 31, 2000

PCDP GOAL: To Promote, Enhance and Reward the Coordination of Care and Case Management Functions of Primary Health Care Practitioners

- Most of the sites note that the nurses' role on the team has evolved over time and continues to evolve.
- Some sites developed patient triage protocols, which subsequently were shared with the other project sites (many of whom are now adapting the protocols for their own use). Many sites noted that access to such information would have been helpful at the very start of the project.

PCDP GOAL: To Optimize The Accessibility of High Quality Primary Health Care, including Appropriate Referral to Other Services

Changes in how primary health care is delivered will ultimately serve to enhance the accessibility, quality, and integration of primary health care. Interviews with project participants conducted during February, 2001 (and reported in the Project Update section of this report) indicate that practitioners view primary health care quality and accessibility to primary health care have been enhanced as follows:

Quality of Care

- Shared responsibility for care and alternative to fee-for-service are enabling many of the physicians to spend more time with patients who require longer office visits;
- Patients access to the full range of primary health care including health promotion and chronic disease management has been enhanced via provision of group education clinics conducted by project nurses;
- Nurses are available to provide: extra explanation or assistance for those patients requiring more support, extra monitoring, and referral to appropriate community-based services;
- A population-based approach to primary health care delivery is enabling the practices to develop a better understanding of the health status of their patient caseload, in turn informing primary health care planning.

Access to Care

- Practices have extended their clinic hours, and [illegible] can have many of their health questions answered over the phone by either a physician or nurse;
- Results of diagnostic tests are being communicated via phone by either the physician or nurse, as opposed to having the patient come into the office;
- Patient triage is resulting in patients being seen in a more timely manner, and by the more appropriate provider;
- Some nurses are conducting home visits to house-bound patients;
- Immunizations/inoculations and non-urgent care are being undertaken by nurses, thus reducing patient wait and freeing physicians to focus on other patient medical concerns;
- Shared responsibility for a patient care is helping to ensure adequate patient coverage; and
- Continuity of care has been observed among the practice's registered patients, as outflows (i.e., patient receipt of primary health care services outside of the PCDP practice) have continually decreased over the year

Quotes from PCDP sites to external evaluators regarding various dimensions of primary health care delivery.

Access

- *"There are fewer patients in the office, but more contacts" "The doctor's day at the clinic is a win-win" "The care is better. If they (patients) call, they're spoken to in minutes"*

Comprehensive care

- *"What's working well? Working with the nurse in a complementary relationship" "having a multidisciplinary team on site makes such a difference to care and we learn so much from each other"*
- *"We have older patients who come in with long lists - getting away from 10 visits for 10 problems- instead of putting things off we'll deal with all the problems now"*
- *"The team gives comprehensive care when I'm away instead of merely holding over"*

Continuity of care

- *"Outside this system someone might have to wait 3-6 months to see a psychiatrist, here it is 1-2 weeks" "the 'out doctor' re-organization has saved a lot of time and has improved patient care. Hospital care has improved and home visits are now shared with the nurse"*
- *"Everyone is responsible for helping people make it in the community. Going to hospital is not the answer"*

Promote health, target disease prevention

- *"I've always been keen on prevention- nice to have a nurse to reinforce the principles." "We have new programs on falls, backs, menopause – the patients are really appreciative"*

Support patients becoming informed/self-reliant

- *"Patients are more involved. They participate and own it more – 95% attending the 'club' are in great control. They are very enthusiastic and proud. I'm sure we'll do more of this"*

Dynamic referral and links to other services

- *"Community healthcare providers are helping each other more, there is more integrated support for the home care nurse." "We know each other now from group meetings"*
- *"This new approach has strengthened my relationship with tertiary care – discharge planning is different – it is all of our responsibility to make it work"*

- *"People come to me now and ask me about community resources – this is new"*

Supported by real-time EMR data

- *"The paperless chart – I think it will be good" "We've managed to input basic core data and it's becoming an amazing record." "The computers are excellent – like a frustrating, brilliant child" "We have a bullet-proof communication system now as well"*

PCDP GOAL:
Enhancing the provision of quality care through support of clinical information management systems.

All the sites experienced considerable computer implementation challenges, and as a result most projects are in the process of building their electronic medical record. Those site that have made progress in this regard report that they find the technology helpful with respect to tracking patient health problems, and the concise summary patient information facilitates patients' health history review.

The Primary Care Demonstration Project (PCDP) would like to thank:

- The members of the PCDP/BCMA Liaison Committee for their invaluable feed back and recommendations regarding the funding formula, patient registration policies, and other project policies.

- The Medical Services Plan, Claims Branch staff for their hard work in developing the infrastructure supporting patient registration, funding calculation, and practice payment and in such a short timeframe!

- The Assistant Deputy Minister's Primary Care Advisory Committee for their project policy recommendation and assistance in selecting the PCDP sites.